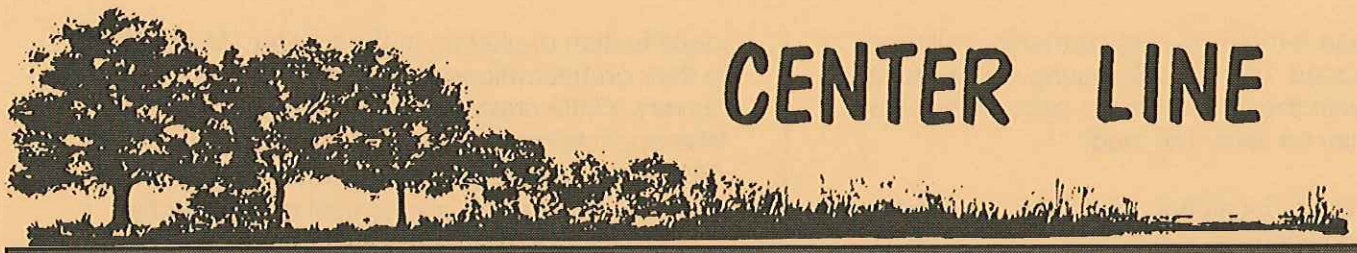

CENTER LINE

A Publication of Waukesha County's Retzer Nature Center

Winter 2012

In this issue...

Upcoming Events:

- JanBoree
- Winter Wildlife on Showshoes
- Earth Week
- Retzer School of the Land

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EMPIDONAX INTERPRETATIONS (OPUS 1-5)

Within a large group of insect eating birds, genus *Empidonax* leads the band in rhythms of confusion. In the quintet of small flycatchers, lovingly called "*empids*", identification becomes a challenge for the birder, and the challenge will drive all crazy! To step up to the tempo of the quintet, an understanding of the players in the group is necessary.

In alphabetic order:

1 - The Acadian Flycatcher, (*E. virescens*)
The 6 inch, large-billed, broad-tailed bird has a very green back. The throat is white. Breast and belly is a pale yellow. Wing bars are a white or buffy color, in contrast to the wings which are much darker. Jet black eyes pop up from white eye-rings. The Acadian flycatcher makes a thin nest of long plant fibers, which the bird suspends between two forks of a tree branch; long fibers hang down from the nest and flutter below. Spanish Moss is a popular material used in nest building. Two to four eggs are laid in the cozy nursery. The Acadian flycatcher molts in late summer, before migrating. Even through this *empid* looks like a clone of the Willow or Adler flycatchers, the Acadian's nest is distinct with a special style—hammock-like in shape with, long streamers fluttering off the base. Rather "art-deco", I would think. The Acadian flies from its perch to catch aerial insects. The song is like the word "pizza"; the call is a loud, even-pitched "peet". The Acadian inhabits deciduous woods, and has an attachment for beech trees. This flycatcher likes to be near water, and enjoys wooded swamp areas.

2 - The Alder Flycatcher, (*E. alnorum*)
The Alder flycatcher was formerly lumped together with the Willow Flycatcher, but presently has taken over his own branch in the species of *alnorum*. Alder flycatchers are more common in Canada during the breeding season, but they are found in Northern Wisconsin too, in Alder thickets, near lake edges, and around swampy sites. The Alder flycatcher is a 6" bird with an olive-brown back. This *empid* has a white throat and a breast of pale olive. The belly is pale yellow. Wing bars are white, eye-rings are white, but those dark eyes will play the solo to your binoculars. The Alder flycatcher nest is a thick-walled cup of fibrous plant life. The inside is lined with plant down and cottony fibers. The nest will be built in shrubs 2 to 6 ft in height. Eggs laid, 3 to 4, are whitish with darker markings. The Alder song is a "rreebeet", with the accent on the second syllable. The call is a "peep".

3 - The Least Flycatcher, (*E. minimus*)
The Least, but not last, in the flycatcher arrangement, is *minimus*. *Minimus*, when reaching a full crescendo becomes a 5" bird. He may be little, but he's loud. (No, not really.) The Least flycatcher, however, resembles all the other members in the quintet. The smallest member of the group may be a tinge grayer on the top, or slightly whiter on the bottom, but the difference is so minimal one can't make an identification. The nest of this bird is a tight cup of grasses, bark strips, and plant down. The nest is built in the crotch of a limb. The female will lay 3 to 4 whitish eggs. The habitat of the Least flycatcher is open woods, aspen groves, or orchards.

Males chase females during courtship, calling a sharp snapped "chibek". Bird song is the repeated "chibek", with the accent on the second syllable. So they may be little, and loud!

4 - The Willow Flycatcher, (*E. traillii*)

The Willow flycatcher is a 6" bird, and looks identical to the Alder *empid*. The back is an olive-brown. The bird has a white throat and a pale yellow belly. The Willow flycatcher builds a thick-walled cup nest of plant fibers, and lines it with softer plant materials. Three to four eggs are laid in the nest which is placed in shrubs which can be 2 to 6 ft in height. This flycatcher's habitat is found in bushes, willow thickets, and sometimes in upland copses. The song of the Willow is a sneezy "fitz-bew", accent on the first syllable; its call is "wit". The Willow flycatcher is most common in the United States, south of Canada. The Alder flycatcher, which separated from *traillii* to become a distinct species, is more common in Canada. The two appear identical, and are separated from each other only by voice and habitat. Both remain in the quintet and still perform in Wisconsin areas.

5 - The Yellow-bellied flycatcher is the most colorful bird in the quintet. Large headed and short-tailed, with a full growth of 5 ½" and a soft evenly-stressed tone in his song, this player will stand out for his fans. The back and head are olive green, the throat is yellow, and the breast is a brighter yellow, with olive wash on the sides. The *empid* has two white decorated bars on a dark wing, and an even whiter eye-ring. When comparing the ensembles, the Yellow-bellied flycatcher is the fancy Dan of the group, and as one birder to another, one has an even chance to bring forth an identification. This flycatcher's habitat is found in dense coniferous forests. It also frequent muskegs and bogs, especially during the summer. The nest is a deep cup of mosses lined with finer materials, and constructed on the ground under protection from tree toots. Sometimes it is hidden among sphagnum moss. The female will lay 3 to 4 white eggs. This flycatcher is the only *Empidonax* to build its nest on the ground. The Yellow-bellied flycatchers are very quiet around the nest. Males will only approach the nest when feeding the young 'uns. The Yellow-bellied bird song is a soft stressed "Cheluk", with the second syllable in a lower pitch. The call is a whistled ascending "purweee", or just "prees". The old adage, seeing is believing, more muddles the confusion of the birder in the identification of players in the quintet. Musicality in their orchestrations must drive the look-a-like players a little crazy too, but in the final score, Wisconsin birders come up truly lucky. The *Empidonax* are tropical birds that migrate north to breed in the Northern hemisphere. They fly up from Central and South America, Mexico and Panama, where they always winter. Every year *empid* families spend their breeding seasons in Wisconsin's noted spots. In fact, the enigmatic quintet might be performing in your Wisconsin area soon.

It might have been a serendipitous moment when finding the list of Great Wisconsin Birding and Nature Trail Regions. Regions were listed in a quintet of information.

The Quintet of locations:
1 – Lake Superior/North Woods
2 – Mississippi/Chippewa Rivers
3 – Lake Michigan
4 – Central Sands Prairie
5 – Southern Savanna

The Acadian Flycatcher can be found in region 2 – (Mississippi/Chippewa Rivers) and region 5 – (Southern Savanna).

The Alder Flycatcher will breed in all Wisconsin birding regions.

The Least Flycatcher and the Willow Flycatcher can be heard in all the Wisconsin Birding Regions also.

The Yellow-bellied Flycatcher can be spotted in Region 1 – (Lake Superior/North Woods), Region 3 – (Lake Michigan), and Region 4 – (Central Sands Prairie)

The birder will realize that identification challenges may be overcome with a good range map. Migration patterns will vary with the *empids*, but with fine-tuning of their passages, aficionados will be in the right place, at the right time, to enjoy the ensemble. Wisconsin offers three concert seasons engaging the quintet: spring, summer, and fall. During winter, of course, the bands will have returned to their tropical homes. Other hints to help in the deconstruction of the confusion in identification are three fold—habitat, home, and harmony. Habitat is particular, homes are one of a kind in construction, and bird harmonies are unique in voice modulation. It will do well to study

the bird songs of the quintet before their concert. If you can't believe what you see, you can believe what you hear. With your libretto in place, the *Empidonax* Quintet can be enjoyed in their natural outdoor settings. And as we used to say back in the old days, an *Empidonax* quintet is really groovy!

See you on the trail,

Shirley Blanchard

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The following individuals have donated to Retzer Nature Center since the last issue of CENTER LINE.

A Sincere Thanks to...

Geraldine Pari for a cash donation.
Pam Merten for a cash donation.

Their support is greatly appreciated.

HEARTWOOD

An Idea Whose Time Has Come—

Retzer On Saturday!

This has been rattling around in my head for awhile.

But first, a little background…

The Waukesha County Nature Program is 40 years old.
Begun in the early 1970s, with the hiring of the first County Naturalist, the program had twin goals:

- land studies for parkland acquisition, and
- nature education for the public.

First headquartered at Naga-Waukee Park, the Nature Program's home base moved to Retzer Nature Center (in the exact geographic center of the County) in 1974—thanks to Florence Retzer's generous donation of 90 acres of land. In the 37 years since then, Retzer's land base has grown to exceed 400 acres, and our staff has grown to 14. Our program objectives have diversified, but nonetheless they have stayed clustered around the original twin goals:

- land studies are now elaborated to include natural land management (of over 10,000 acres of parkland!), and
- nature education has blossomed to include school and family programs (as well as a host of special events!).

The County Naturalist's original education programs took the form of seasonal interpretive hikes, typically held on Saturdays, out in the various Parks. Menomonee, Muskego, Minooka, and Nashotah Parks all had their share of these hikes in the early years; we have records of as many as 75 people following the Naturalist down the trail, learning intently about the rich interactions of the land system. These original public hikes acted as a template for an assorted series of new, themed interpretive programs, still held on Saturdays, out in the Parks—ecology programs on forests, prairies, bogs, and fens; identification programs on trees, grasses, birds, and wildflowers; programs on the mysteries of autumn color, and on the natural history of winter animals. These programs were successful for many years—they reached a clientele of interested folks wanting to learn about nature in the parklands near their homes. However, a time came when the audience for these traditional programs started to decline. Maybe we reached everybody interested in these topics, or maybe a new generation of park users had different interests, or maybe the requirement for advance program registration did not match people's increasingly spontaneous lifestyle. Whatever the reasons, attendance at these scheduled Saturday programs in the parks went down, even as programs and events held at Retzer Nature Center were booming. It has become obvious to me that we need to update and supercharge our effort to reach a very important part of our program audience: **People On Saturday!**

Time to do something about this!

Beginning on January 7th, 2012 (and continuing through most Saturdays thereafter), great, informative, fun, informal, inexpensive Naturalist Programming will be available at Retzer on Saturdays, under the title of '**The Retzer School of the Land**'!

On most Saturdays, we'll offer a '**feature program**' on a particular topic of interest. Different programs will be geared differently—some for families, some for kids, some for land-owners, some for folks with a particular interest in plants or animals. We will make the schedule of upcoming feature programs available in advance,

so people can make plans to attend; however, it will also be just fine to show up, **spur-of-the-moment**, and participate in the program without pre-registering.

Some of the likely feature programs include:
discovery-based nature interpretation for kids and families, nature arts and crafts, spring birds and wildflowers, ID/ecology of prairie grasses & flowers, native plant care and seed harvest, winter tracking on snowshoes, animal adaptations (using live animals), bird-feeding, GPS use, and geo-caching, just to name a few.

In addition to each Saturday's feature program, the Naturalist will be on hand for the express purpose of meeting our visitors, and adding value to their visit. He/she will likely be working on **something of interest** (to draw folks over and spark conversation); this might be making a display, doing a craft, or hand-cleaning wildflower seed.

Depending on people's interests, the Naturalist would be free (and encouraged) to do **spontaneous interpretive activities** with them, such as a spur-of-the-moment bird or wildflower hike, bringing out the teaching animals, netting insects, presenting a slide show/power point, wildflower seed-cleaning, plant potting, or kite-flying on the west hill.

Our big objective in 2012 and beyond will be for people to think of Retzer Nature Center as a great place to go on Saturday, for specific programs and fun, or just to see what's going on!

Hope to see *YOU* on Saturday!

Larry

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THE PERFECT HOLIDAY GIFT!

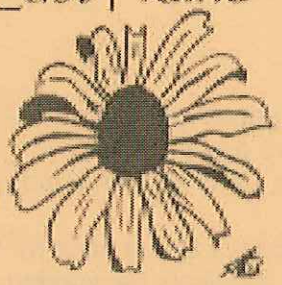
Retzer Nature Center Perpetual Calendar is here!

Only $10.00.

All Proceeds go to the
"Friends" of Retzer Nature Center.
A Perpetual Calendar displays the dates of each month; perfect for recording your personal dates to remember year after year.

Monthly photos courtesy of Retzer Camera Club

STRETCHED TO THE LIMITS



Ah yes, we have all felt like this; probably often, unless you have earned the right to retire (but most retired folks tell me life does not slow down post-employment). The 'stretched' above refers to tension, specifically. It is one variant on the word's definition: the act or action of stretching or the condition or degree of being stretched to stiffness or tautness. Another meaning deals with "strongly opposing forces" and where they come into contact. Water tension, due to the polarity of water molecules, is what keeps Water Striders and other creatures sitting high on top of the pond's surface. Sometimes we 'feel' emotional tension in a room taught enough to 'cut it with a knife'. The common theme is a border, membrane, or some other layer that resists breakage and passage.

The **tension zone** also deals with borders and limits. As the name clearly states, it is a 'zone' instead of merely a line. This zone runs through Wisconsin from the northwest to the southeast, and through the northeastern corner of our own Waukesha County. This is great news for us; it is the reason for our incredible biotic variety. In order to understand why it has such an effect on diversity, we must delve much, much deeper into just what exactly is running through our northeastern corner. This mysterious phenomenon is "A band between two floristic provinces, marked by the intersection of species from both" (Curtis 1971). It is an overlapping of two vegetative areas. It is quite literally where many southern Wisconsin plants reach the northern limits of their range, and where many northern plants reach the southern limits of their range.

As in the aforementioned quote from Curtis, there are two distinct floral provinces in Wisconsin. Any of us who regularly travel to the Northwoods have seen this. Curtis (1971) identifies these as the Prairie-forest to the south and west, and the Northern Forest (or Hardwoods) to the north and east. There are plants that are found throughout the state, but there are other less-facultative species that require certain temperatures or moisture. Some are restricted (with the exception of post-glacial **refugia**—small, isolated pockets where cool and moist conditions can still support northern flora) to the north where it is moist and cooler, and some are confined to the south where it is warmer and drier.

Why is it warm, dry, wet, and cool? Some of this is obvious. As you head north, the temperature drops. So why is the zone not a true east-west parallel? Blame the mighty Rocky Mountains. We do not escape the effects of the mountain range's **rain shadow.** With prevailing westerly winds, the moisture-rich air coming off the Pacific Ocean meets the Rocky Mountains. Air masses are forced upward where they cool quickly, raining and snowing on the west side of the mountains. The air blowing east of the range has very little moisture, and this is where the true Shortgrass Prairies grow. As the wind blows eastward, the air gradually picks up moisture, but not fast enough for us. This is what helps extend the Prairie Pothole region north into three Canadian Provinces, and pushes it west to just barely touch Wisconsin. The final meteorological player in our state is the 'inland freshwater sea' of Lake Michigan. The same body of water that gives us lake-effect snows also draws our tension zone south near the lakeshore.

Eggers and Reed (1997) have extrapolated the tension zone into Minnesota. As it travels west, it rapidly rises toward the northern border and on into Canada. Michigan has also defined their tension zone. It travels along a nearly true east-west line (Schaetzl and Izard 1991). This follows the pattern we just described. Minnesota is definitely part of the Prairie Pothole region, and the zone levels out a little in Michigan, where the air moisture has recovered from the theft of the Rockies (I am sure the Great Lake helps). There are many

maps and studies that show wind patterns, mean temperatures, average precipitation, prominent air masses, and many others. Mostly, the **isorithms** (lines on a map connecting points of the same numerical value) follow the zone so closely it's almost spooky.

Soil patterns also reflect the surface maps. This only makes sense, as plants shape the soils. Or do soils determine floral makeup? Both are correct, but there is always more to the story. Sometimes soil parent material does not lend itself well to what would 'normally' grow at a given latitude, or glacial till may radically increase soil drainage. Where the glaciers left uniform subsurface conditions, the vegetation and climate shaped the soil. Here, the tension zone is fairly narrow (only about 15 miles). Where the subterranean factors were inconsistent or strongly affected the vegetation due to drainage and/or bedrock depth, the zone is much wider (Curtis 1971).

By now, I am certain you agree that just like everything else in ecology, the tension zone concept is complicated, but so is anything worth knowing. As you travel by foot or car through the wild spaces this part of the country has to offer, watch for the transitions. They offer some very interesting areas of strange and unusual diversity.

Mike

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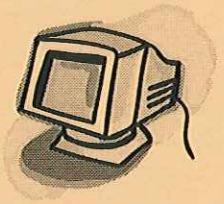

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The organization seeks the involvement of the community in the form of financial and volunteer support to work toward the continued growth and improvement of Retzer Nature Center. If you would like to become a member or view some of our projects and activities, please visit our web site at http://FriendsOfRetzer.org.